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A new species of *Orientomysis* (Crustacea: Mysida: Mysidae) from the Gulf of Thailand

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A new species of mysidacean crustacean, *Orientomysis calida*, is described from the Gulf of Thailand. *Orientomysis calida* resembles *O. leptura* (Liu and Wang, 1980) but differs in that the second endopodal segment of the maxilla lacks tiny spines on the lateral margin, the exopod of the fourth male pleopod has two subequal terminal setae, and the uropodal endopod has a single spine on the ventral statocyst region. This is the first record of a species of *Orientomysis* outside East Asian waters.

Key Words: Crustacea, Mysida, *Orientomysis*, new species, Gulf of Thailand.

Introduction

Orientomysis Czerniavsky, 1882 was revived by Holmquist (1981) and redefined by Fukuoka and Murano (2005). This genus belongs to the tribe Mysini of the subfamily Mysinae and currently comprises 21 species from Japanese, Korean, and Chinese coastal waters (Fukuoka and Murano 2005). In a preliminary survey of copepod and mysid faunae directed by Dr Susumu Ohtsuka, an undescribed species of *Orientomysis* was collected from the Gulf of Thailand. It is described here as *Orientomysis calida* sp. nov. This is the first occurrence of any species of *Orientomysis* in Southeast Asian waters.

In the description, body length is measured from the tip of the rostrum to the posterior end of the telson, excluding spines. The specimens examined have been deposited in the National Science Museum, Tokyo (NSMT).

Taxonomy

Orientomysis calida sp. nov.
(Figs 1, 2)

Type material. Holotype: NSMT-Cr 16087, male (4.5 mm), dissected, Ao Praow, Samet Island, northern Gulf of Thailand, >1.5 m, sledge net, daytime, 25 Mar. 2000, coll. S. Ohtsuka. Paratypes: NSMT-Cr 16088, 1 female (5.2 mm), dissected, same data

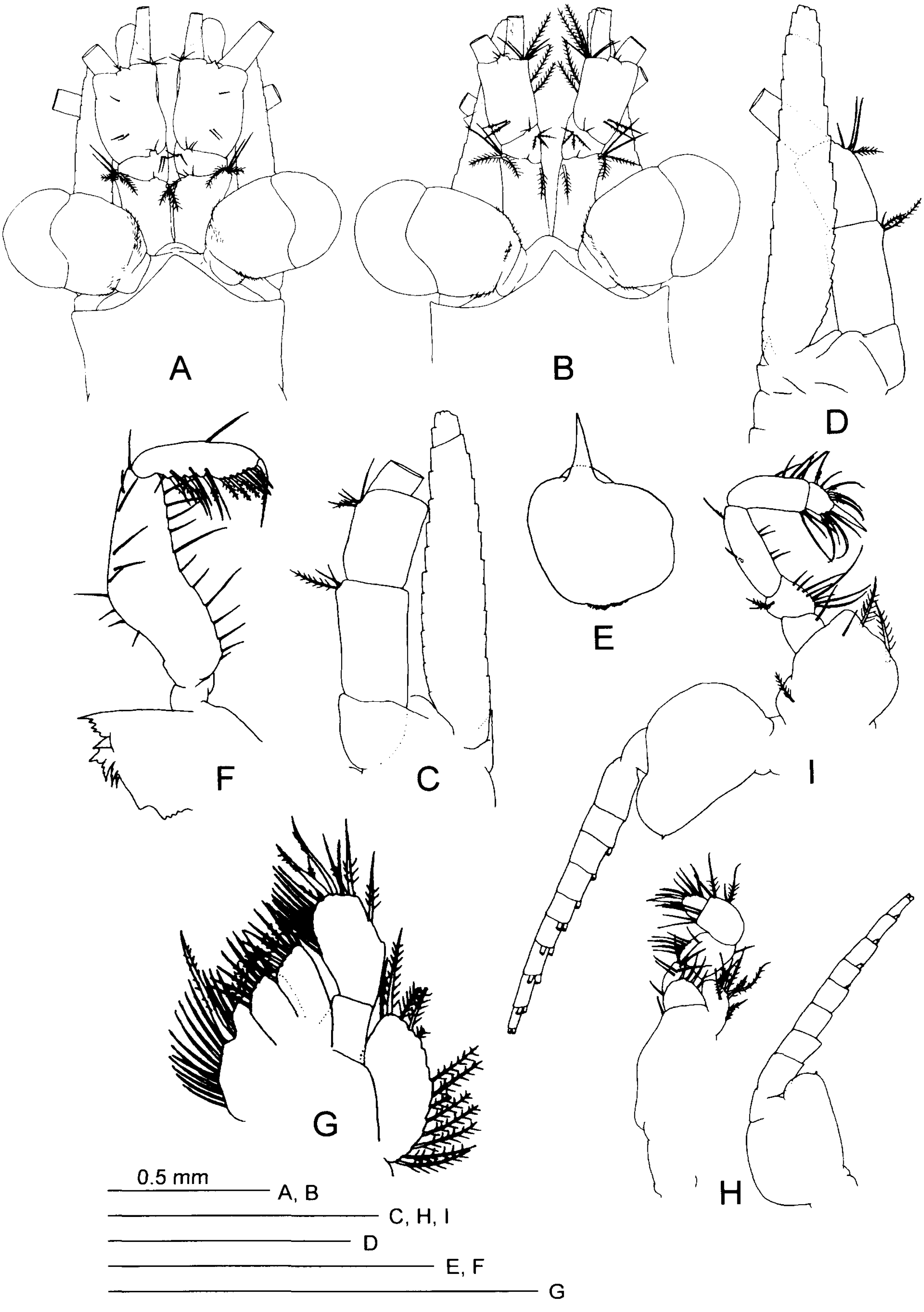

Fig. 1. *Orientomysis calida* sp. nov., male (holotype, NSMT-Cr 16087: A, C, E, H, I) and female (paratype, NSMT-Cr 16088: B, D, F, G). A, B, Anterior part of body, dorsal; C, right antenna, dorsal; D, left antenna, dorsal; E, labrum, ventral; F, left mandible; G, left maxilla, posterior; H, right first thoracic limb, anterior; I, right second thoracic limb, posterior.

as holotype; NSMT-Cr 16089, 1 male (5.0 mm) and 8 females (4.3–5.3 mm), same data as holotype.

Other material examined. NSMT-Cr 16090, 2 females (4.5 and 5.3 mm) and 1 immature female (2.7 mm), Vonnapha Beach, south of Chon Buri, Bight of Bangkok, Thailand, >1.5 m, sledge net, daytime, 22 Mar. 2000, coll. S. Ohtsuka; NSMT-Cr 16091, 1 male (4.6 mm), 1 immature male (3.8 mm), and 15 females (4.3–5.3 mm), Sai Kaew Beach, Samet Island, northern Gulf of Thailand, >1.5 m, sledge net, daytime, 24 Mar. 2000, coll. S. Ohtsuka.

Description. Integument smooth. Thoracic somites without sternal processes. Abdominal somites without spines or folds; first to fifth somites subequal in length, sixth somite 1.2–1.3 times as long as fifth.

Carapace produced anteriorly into low triangular rostral plate with concave lateral margins; apex of rostrum not extending to base of antennular peduncles (Fig. 1A, B); anterolateral corner rounded; posterior margin smooth, emarginate, leaving last 4 thoracic somites exposed dorsally.

Eyes slightly flattened dorsoventrally, 1.2–1.3 times as long as broad; cornea reniform in dorsal view, occupying one-third of eye; eyestalk setose on basal portion, without papilla on dorsal surface (Fig. 1A, B).

Antennular peduncle of male more robust than that of female, first segment 1.5 times as long as broad, third segment almost as long as proximal 2 segments combined, with developed appendix masculina (Fig. 1A); in female, first segment twice as long as broad, third segment slightly shorter than first (Fig. 1B).

Antennal scale lanceolate with rounded apex, extending beyond antennular peduncle, not reaching apex of appendix masculina in male, 5.8 times as long as broad, setose on entire margin, with subapical suture (Fig. 1A–D). Antennal peduncle extending to distal fourth of scale in male and to distal two-fifths in female (Fig. 1C, D). Antennal sympod with spiniform process at distolateral angle (Fig. 1C, D).

Labrum with acute, spiniform process on anterior margin (Fig. 1E). Mandibular palp with second segment 3–3.5 times as long as broad; third segment half as long as second (Fig. 1F). Mesial lobe of maxillule armed with 3 long and 7 short setae on margins; lateral lobe of maxillule armed with 10 robust spines on distal margin and 3 long setae on ventral surface, expanded outwards in proximal half of lateral margin. Endopod of maxilla with distal segment 1.4–1.8 times as long as broad, without tiny spines among long setae on margins (Fig. 1G); exopod of maxilla not extending to distal margin of proximal segment of endopod, armed with long, plumose setae on apical and lateral margins (Fig. 1G).

Endopod of first thoracopod short, robust, with strong claw on dactylus (Fig. 1H). Endopod of second thoracopod robust; carpopropodus three-fourths of merus in length (Fig. 1I). Endopod of third to eighth thoracopods with carpopropodus divided into 4 subsegments by transverse articulations; dactylus with slender terminal claw (Fig. 2A, B). Exopod of thoracopods with flagellum 8-segmented in first and eighth pairs, 9-segmented in second to seventh pairs; basal plate armed with 1–3 tiny spines at lateral distal angle (Fig. 1H, I).

Penis twice as long as broad in lateral view, armed with 3 long and 2 short setae on distal half of posterior margin, 4 mesially curved setae on distal margin, and 2 long, plumose setae on anterior margin near apex (Fig. 2C).

Marsupium composed of 2 pairs of developed oostegites; oostegite on seventh limb with baling lobe.

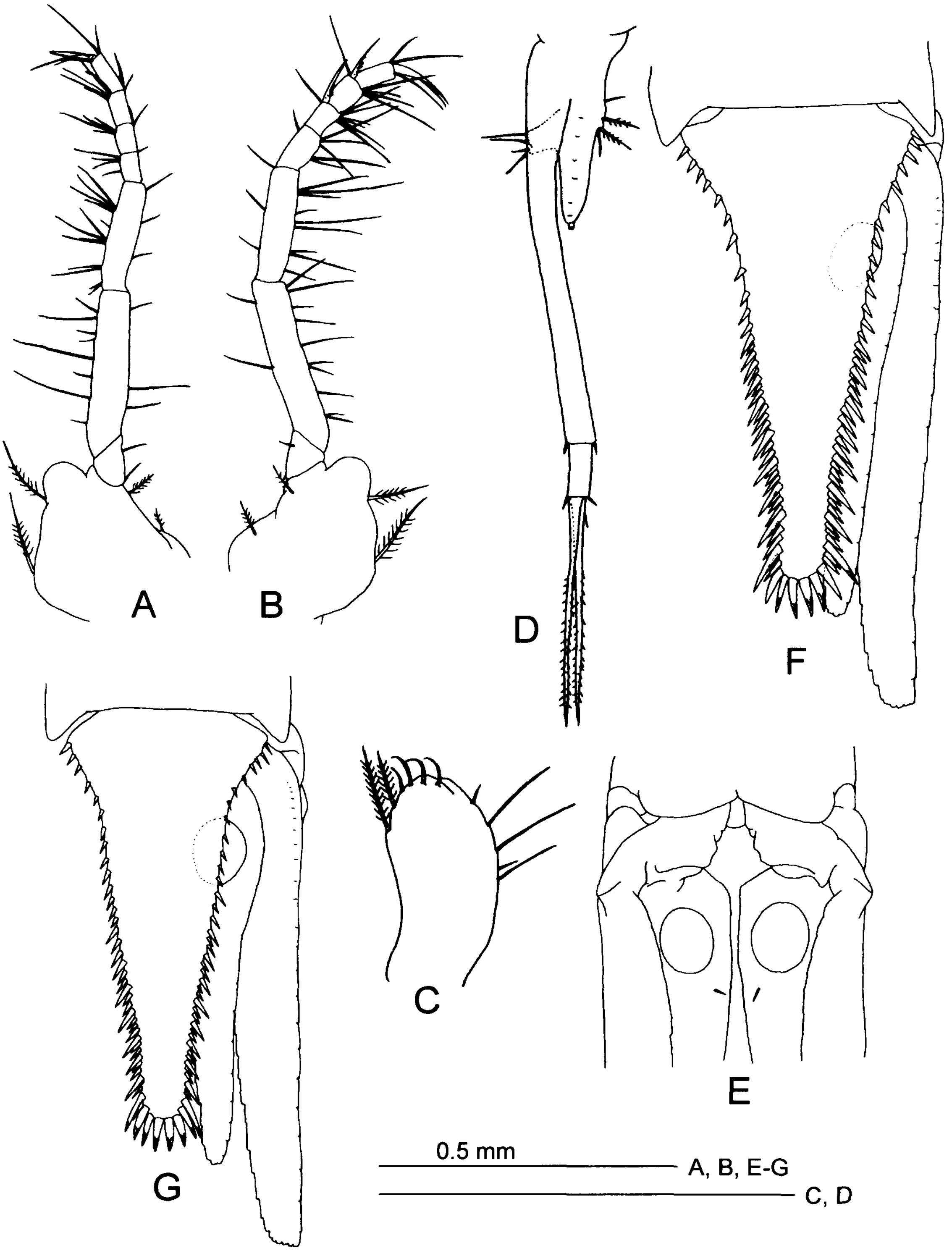

Fig. 2. *Orientomysis calida* sp. nov., male (holotype, NSMT-Cr 16087: A–F) and female (paratype, NSMT-Cr 16088: G). A, Endopod of right third thoracic limb, posterior; B, endopod of right sixth thoracic limb, anterior; C, right penis, lateral; D, right fourth pleopod, anterior; E, proximal part of uropods, ventral; F, G, uropod and telson, dorsal.

First to third and fifth pleopods of male and all pleopods of female uniramous, reduced to unsegmented lobe, increasing in length from first to fifth pleopod, with poorly developed pseudobranchial lobe; fifth pleopod 1.6 times as long as third in male, 1.7 times as long as fourth in female. Fourth pleopod of male biramous; endopod reduced to unsegmented lobe, with developed pseudobranchial lobe; exopod long, extending to posterior end of last abdominal somite, 2-segmented; proximal segment long, 2.5 times longer than endopod, armed with short seta on each distal corner; distal segment short, one-seventh of length of proximal segment, armed with short seta on each distal corner and 2 long, robust, spiniform setae on terminal end, long setae subequal in length, 4.3 times as long as distal segment (Fig. 2D).

Uropodal endopod extending to or slightly beyond apex of apical spines of telson, armed with single spine on ventral surface close to statocyst (Fig. 2E–G). Uropodal exopod extending beyond endopod by one-sixth of its own length (Fig. 2F, G).

Telson long-triangular, 1.5–1.7 times as long as sixth abdominal somite, 2.1 times as long as its own broadest part; lateral margin armed with about 40 spines along entire length, spines in distal half grouped into 7–9 clusters, each cluster composed of larger spine followed by 1–3 smaller ones, and larger spines increasing in length distally except distalmost larger spines slightly shorter than preceding larger spines, and no smaller spines between distalmost larger spine and outer apical spine; distal margin armed with 2 pairs of large, subequal apical spines, these as long as distalmost larger spines on lateral margins and slightly flattened distally (Fig. 2F, G).

Etymology. The species name is derived from the Latin *calidus*, meaning “warm”, referring to the region where the specimens were collected.

Remarks. *Orientomysis calida* is allied to *O. leptura* (Liu and Wang, 1980), which is known from Chinese coastal waters of the South China Sea, in the shape and armature of the telson, but is distinguished from the latter species by the characters of the fourth male pleopod, the maxilla, and the uropodal endopod (cf. Liu and Wang 1980). The two long setae terminating the exopod of the fourth male pleopod are subequal in length in *O. calida*, whereas those of *O. leptura* are unequal, with the longer seta 1.3 times as long as the shorter one. The second segment of the endopod of the maxilla is not armed with tiny spines on the lateral margin in *O. calida*, whereas it is armed with several tiny spines in *O. leptura*. There is one spine on the ventral surface close to the statocyst of the uropodal endopod in *O. calida*, as compared to three in *O. leptura*.

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